

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**  
**BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In the Patent Application of

Eric J. Hansen and  
Jesse J. Williams

Serial No.: 09/589,973

Filed: June 8, 2000

For: EXTRACTION CLEANING WITH  
OXIDIZING AGENT

Group Art Unit: 1796

Examiner: Necholus Ogden Jr.

**APPEAL BRIEF**

Mail Stop AF  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

This is an Appeal Brief pursuant to 37 C.F.R. § 41.37 in support of Applicants' appeal of the Final Rejection of the Examiner, mailed January 8, 2008, of claims 2-10, 12-16 and 18-28. Each of the topics required by 37 C.F.R. § 41.37 is presented herewith and is labeled appropriately.

**I. REAL PARTY IN INTEREST**

BISSELL Homecare, Inc., a corporation in the State of Michigan, having its principal place of business in the city of Grand Rapids, Michigan, is the real party in interest of the present application. An assignment of all rights in the present application to BISSELL Homecare, Inc. was executed by the inventors and recorded in the U.S. Patent and Trademark Office at Reel/Frame: 010873/0542.

**II. RELATED APPEALS AND INTERFERENCES**

The claims in this application were subject to a previous appeal (2005-1053) to the United States Patent and Trademark Office Board of Patent Appeals and Interferences BAPI in

which a decision was mailed August 17, 2005. A Request for a Pre-Appeal Brief Conference was filed September 12, 2006. The Notice of Decision was mailed October 23, 2006. A Request for a Pre-Appeal Brief Conference was filed April 4, 2008. The Notice of Decision was mailed May 13, 2008.

There are no related interferences.

### **III. STATUS OF CLAIMS**

The application has 25 claims, which are presented in the Appendix. Claims 1-28 were in the application as filed. Claims 1, 11 and 17 have been cancelled and claims 2-10, 12-16 and 18-28 are currently pending. Accordingly, the Appellants hereby appeal the final rejection of claims 2-10, 12-16 and 18-28.

### **IV. STATUS OF AMENDMENTS**

Two amendments have been filed on April 29, 2003 and October 13, 2005, respectively. Both amendments have been entered. Subsequent to the final Office Action dated January 8, 2008, no amendments have been made to the claims.

### **V. SUMMARY OF CLAIMED SUBJECT MATTER**

The invention relates to a method for cleaning an upholstery or carpet surface in which a fluid carpet or upholstery cleaning solution is dispensed onto the upholstery or carpet surface to be cleaned and the cleaning solution is recovered from the surface with suction. An oxidizing agent is admixed with the cleaning solution prior to dispensing the cleaning solution onto the upholstery or carpet surface. In one independent claim, the mixture of oxidizing agent and cleaning solution is heated with heated air to heat the mixture and the air is heated before mixing with mixture of oxidizing agent and cleaning solution. In another independent claim, the cleaning solution is heated before it is mixed with the oxidizing agent. Although the oxidizing agent can be a variety of compounds, it is typically a hydrogen peroxide solution.

### **VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

1. In the Office Action of January 8, 2008, the Examiner rejected claims 18 under 35 U.S.C. §103(a) as unpatentable over U.S. Patent No. 5,500,977 to McAllise et al. (McAllise '977) in view of U.S. Patent No. 5,500,977 to Miracle (Miracle). Appellants appeal the Examiner's assertion that McAllise '977 and Miracle renders claim 18 obvious under 35 U.S.C. §103(a).

2. In the Office Action of January 8, 2008, the Examiner rejected claims 2-10, 12-16, 18-28 under 35 U.S.C. §103(a) as unpatentable over U.S. Patent No. 5,987,696 to Wang (Wang) in view of Miracle. Appellants appeal the Examiner's assertion that Wang and Miracle render claims 2-10, 12-16, 18-28 obvious under 35 U.S.C. §103(a).

3. In the Office Action of January 8, 2008, the Examiner rejected claims 2-10, 12-16, 18-28 under 35 U.S.C. §103(a) as being obvious over the McAllise et al. U.S. Patent No. 5,987,696 (McAllise '696) in view of Miracle. Appellants appeal the Examiner's assertion that McAllise '696 and Miracle render claims 2-10, 12-16, 18-28 obvious under 35 U.S.C. §103(a).

## **VII. ARGUMENTS**

The rejections of the claims are without basis in fact or law. The Examiner's rejections are based on a clear legal and/or factual deficiency and not based on interpretation of claims or prior art teachings.

### **1. The Prior Decision by the Board of Patent Appeals and Interferences**

The prior appeal (2005-1053) to the BAPI related to the rejection of all of the claims in the application under 35 U.S.C. §103(a) over the prior art references to Sham US 5386612 (Sham), Ligman US 5555595 (Ligman) and Miracle et al. US 5576282 (Miracle). In its prior decision, the BAPI, in its opinion mailed August 17, 2005 (BAPI Opinion), affirmed the Examiner's rejection of some of the claims but reversed the Examiner's rejection of other claims. It is these other claims that the BAPI found to be not properly rejected that form the basis of this appeal.

Appellants believe that the rejection of claim 21 and dependent claims 2-10, 12-16, 19, 20 and 22-28 is contrary to the prior decision of the Board of Patent Appeals and Interferences (BPAI) in this matter because, other than the Miracle patent which is part of the evidence in this appeal, the cited prior art references against these claims disclose essentially the same subject matter as the Ligman and Sham references applied against these claims in the prior appeal. Appellants believe that the prior decision of the BAPI is controlling in this appeal and further that these claims are allowable because the Examiner's rejection of these claims is not supported in fact by the record as in the prior appeal.

Further, with respect to claim 18, Appellants believe that the Examiner has not made a *prima facie* case of unpatentability of claim 18 under 35 U.S.C. § 103 as required by *In re Vaeck* 947 F.2d 488, 20 USPQ 2nd 1438 (Fed. Cir. 1991) and that his rejections of this claim are not supported in fact by the record.

**2. The Examiner has not made a prima facie case of unpatentability of claim 18 under 35 U.S.C. §103(a) over the McAllise '977 et al. in view of Miracle.**

Claim 18 reads as follows:

18. A method for cleaning an upholstery or carpet surface in which a fluid carpet or upholstery cleaning solution is dispensed onto the upholstery or carpet surface to be cleaned and the cleaning solution is recovered from the surface with suction, comprising the steps of:

- admixing an oxidizing agent with the cleaning solution prior to the step of dispensing the cleaning solution onto the upholstery or carpet surface;
- mixing the admixture with heated air to heat the admixture; and
- heating the air before the step of mixing with admixture with heated air.

Claim 18 was not rejected over McAllise '977 in view of Miracle in the prior appeal. In reversing the rejection of claim 18 over the combination of Miracle in view of Ligman or Sham, the board stated:

... We agree with the appellants that the applied prior art contains no teaching or suggestion of the feature recited in separately argued claims 8, 14 and 18 wherein "the admixture is mixed with heated air to heat the admixture and further

comprising the step of heating the air before the step of mixing with [sic, the] admixture with heated air.” The examiner’s obviousness conclusion regarding these claims (see page 13 of the answer) is simply without evidentiary support. We are constrained, therefore, to reverse the examiner’s section 103 rejection of claims 8, 14 and 18 as being unpatentable over Miracle in view of Ligman or Sham. (BAPI Opinion pp. 6-7)

However, the BAPI noted in a footnote on page 7:

... the Examiner and the Appellants should consider and resolve whether the claims under consideration patentably distinguished over the combined teachings of Miracle [US patent 5, 576, 282] and McAllise et al. patent [McAllise et al. 5,500,977] (e.g. see Figures 8b and 11a, the paragraph bridging columns 8 and 9 as well as lines 11-26 in column 12).” (BAPI Opinion p.7).

In its prior decision in this matter, the BAPI held that “Miracle disclose a cleaning solution containing an oxidizing agent to be used for a variety of cleaning purposes including as a cleaning shampoo for carpets (e.g., see lines 19-46 in column 11).” (BAPI p.3) Appellants do not dispute this description of the Miracle disclosure.

McAllise ‘977 discloses a carpet extractor in which a detergent composition is applied to a surface to be cleaned and the soiled solution is subsequently removed from the surface with suction. The disclosure in McAllise ‘977 is not appreciably different with respect to the claims on appeal than the Sham and Ligman references that were combined with McAllise ‘977 in the earlier appeal except for the disclosure in column 12, lines 11-26 that “warm, moist exhaust air, from motor fan ‘610, is discharged through discharged nozzle 65 and directed toward the surface being cleaned.” Appellants do not dispute the combination of Miracle and McAllise ‘977 in view of the previous decision of the BAPI in this matter. However, Appellants dispute that the combination of Miracle and McAllise ‘977 meets the limitations of claim 18.

Appellants can find no disclosure in the McAllise ‘977 patent as to the source of the “warm, moist exhaust air from motor fan 610 is discharged through district nozzle 65.” Therefore, it is not understood what is meant by McAllise ‘977 referring to “warm, moist exhaust air”. The term “warm” is a relative term and is not defined in the McAllise ‘977 patent. The term “warm” can be used in different contexts. For example, air at 40° F could be considered to be warm with respect to some freezing temperatures. In the context of the McAllise ‘977 patent,

"warm, moist air" might be considered to be the ambient temperatures or something slightly above ambient temperatures because there is no teaching in McAllise '977 how one achieves "warm, moist air". The Examiner has offered no explanation of how "warm, moist air" can be produced in the McAllise '977.

The Examiner contends that "McAllise et al. specifically teach and discloses that the air is warmed by motor 610 prior to admixing with the cleaning solution at the discharge nozzle (col. 12, lines 11-26)." The Examiner is clearly wrong in his interpretation of the McAllise '977 patent. There is nothing in the cited passage in the McAllise '977 patent that supports the Examiner's conclusion. This passage merely states that the motor *fan* 610, not the motor, discharges the air through nozzle 65. The cited passage discloses that the air from the recovery tank 50 is drawn to the inlet plenum 619 of the motor fan via stand pipe 672 and 572. This passage is clearly shown in Figs. 2, 5 and 6. This air completely avoids the motor 628 (see Fig. 2). The Board's attention is further directed to col. 3, lines 33-39 and Figs. 2, 6 and 8B, which disclose a separate cooling path for the motor, which is common in extractors. Therefore, it is quite clear from a reading of McAllise '977 that there no heating of the exhaust air by the motor 628.

There is no disclosure in McAllise '977 of heating the air. The air which is exhausted from the motor fan 610 is ambient air which has been sucked through the suction nozzle in the base and then passed through the recovery tank. If the air is warm, it can essentially be no warmer than ambient air which is drawn in through the suction nozzle. If the air that is exhausted from the motor fan 610 is under pressure, the air will be cooled when it expands as it passes through a discharge nozzle 65. Thus, the air that passes through the discharge nozzle 65 and atomizes the cleaning fluid is not heated. If there is any evaporation of the cleaning fluid due to the atomization process, then the cleaning fluid will be further cooled. In any case, the air from the motor fan 610 in the McAllise '977 reference cannot heat the cleaning solution. The Examiner should also note that the cleaning fluid in the cleaning fluid supply tank of McAllise '977 is likely at or above ambient air temperature if hot water is added to the detergent tank and therefore cannot be heated by the exhaust air from the motor fan 610. At best, the Examiner's

alleged combination of references discloses mixing warm moist air with a cleaning solution but that disclosure in and of itself does not meet the limitations of claim 18 which states in relevant part as follows:

mixing the admixture with heated air to heat the admixture; ...

Further, and more importantly, the Examiner's alleged combination does not disclose the step of:

heating the air before the step of mixing the admixture with heated air.

Contrary to the Examiner's faulty interpretation of the McAllise et al., McAllise '977 does not disclose either of these claim limitations in his rejection.

Further, neither of the Miracle and McAllise '977 references have any hint as to why the McAllise '977 cleaning solution should be heated. The stated goal of the Miracle et al. composition is to provide cleaning compositions that include an oxidizing agent, and one or more bleach boosters that are more effective at low temperatures to provide a bleaching composition that demonstrates improved performance at low temperatures (Col. 4, ln. 35-38). The disclosed temperatures suitable for use with the compositions of Miracle et al. are 20-40 °C (104-140 °F), which is within the range or below of household hot tap water. Since Miracle et al. '282 teaches using their bleaching compositions at low temperatures where no additional heat is required that cannot be supplied from simply using hot tap water, there is no reason to heat the McAllise '977 cleaning solution. Thus, there is not reason as to why combination of Miracle and McAllise '977 should be modified to meet the limitations of claim 18:

mixing the admixture (of oxidizing agent and cleaning solution) with

heated air to heat the admixture; and

heating the air before the step of mixing the admixture with heated air.

In view of the foregoing arguments, it is clear that claim 18 is not met by the combination of Miracle and McAllise '977.

**3. The Examiner's rejection of claims 2-10, 12-16, 18-28 under 35 U.S.C. §103(a) over Wang in view of Miracle et al. is without evidentiary support and contrary to the previous decision of the BAPI in this matter.**

**Group A: Claim 18**

The Wang patent discloses a carpet cleaning machine in which a reservoir 320 is connected to an application subsystem 400 (wand) through a fluid pump 310 and a heater 340. Wang '696 discloses nothing more with respect to the subject matter of claim 18 than the Ligman '595 patent or Sham '612 patent were the subject of the previous appeal. The Board reversed the Examiner's rejection of claim 18 over the combination of Ligman or Sham in view of Miracle was reversed by the BPAI in its previous decision. (Opinion, p 6-7) Ligman and Sham disclose a carpet cleaning apparatus that includes a heater for heating a cleaning solution that is applied to a carpet and then removed from the carpet by suction. Thus, the Examiner's combination of Wang and Miracle et al. is no different than the Examiner's flawed combination of Ligman '595 or Sham '612 and Miracle et al. '282, which was reversed by the BPAI. The Examiner continues to ignore the BPAI decision which is the law of the case. Since the combination of Wang '696 and Miracle et al. '282 offers no new subject matter with respect to claim 18 than the previous references Ligman '595 and Sham '612, the BPAI decision is still relevant and should be applied accordingly.

The only relevant disclosure in Wang '696, Ligman '595 and Sham '612 is a carpet or upholstery cleaning machine with a heater. None of these references disclose, teach or suggest the limitation of claim 18 comprising mixing the admixture (of oxidizing agent and cleaning solution) with heated air to heat the admixture; and heating the air before the step of mixing the admixture with heated air. The BPAI previously rejected the Examiner's obviousness conclusion based on Miracle et al. '282 in view of Ligman '595 or Sham '612 stating:

"We agree with the appellants that the applied prior art contains no teaching or suggestion of the feature recited in separately argued claims 8, 14 and 18 wherein "the admixture is mixed with heated air to heat the admixture and further comprising the steps of heating the air before the step of mixing with [sic, the] admixture with heated air." The examiner's obviousness conclusion regarding these claims is simply without evidentiary support. We are constrained therefore to reverse the examiner's section 103 rejection of claims 8, 14 and 18 as being unpatentable over Miracle in view of Ligman or Sham. (BPAI p. 6-7)."



Since Wang '696 provides no new subject matter relevant to claim 18, the BPAI's reversal of the rejection of claim 18 over Miracle in view of Ligman or Sham is still relevant and should be applied accordingly.

The Examiner has not articulated any reasons as to why claim 18 is met by Wang and Miracle. It is therefore submitted that the Examiner has not met his burden of establishing a *prima facie* case of unpatentability as required by *In re Vaeck* 947 F.2 488, 20 USPQ 2nd 1438 (Fed. Cir. 1991). In any case, the combination of Wang and Miracle does not disclose the steps of mixing an admixture (of oxidizing agent and cleaning ) with heated air to heat the admixture and heating the air before the step of mixing the admixture with heated air as set forth in claim 18. Claim 18 is thus believed patentable over the combination of Wang and Miracle for the same reasons that the Board reversed the Examiner with respect to the combination of Miracle and Ligman or Sham.

**Group B: Claims 21, 2-10, 12-16, 19-20 and 22-28**

Claims 2-10, 12-16, 19-20 and 22-28 are directly or indirectly independent on claim 21 and are grouped with claim 21.

21. (Currently amended) A method for cleaning an upholstery or carpet surface in which a fluid carpet or upholstery cleaning solution is dispensed onto the upholstery or carpet surface to be cleaned and the cleaning solution is recovered from the surface with suction, comprising the steps of:

admixing an oxidizing agent with the cleaning solution prior to the step of dispensing the cleaning solution onto the upholstery or carpet surface; and  
heating the cleaning solution before the admixing step to heat the admixture.

Claim 21 was previously rejected to over Miracle in view of Ligman or Sham in an Office Action that was the subject of the earlier appeal. This rejection was reversed in the previous appeal to the BPAI in its Opinion, pp. 7-8. Wang discloses nothing more with respect to the subject matter of claim 21 than the Ligman or Sham references. The Examiner has ignored the BPAI decision which is the law of the case. Since the combination of Wang and Miracle offers no new disclosure with respect to claim 21 than the previous combination of Ligman and Sham, the BPAI decision is controlling and should be decisive in summarily

reversing the Examiner's rejection of claim 21 and the claims dependent therefrom.

Referring now to the BPAI Opinion in more detail, claim 21 depended from claim 1 and added the limitation of "heating the cleaning solution before the admixing step to heat the admixture." The Examiner had rejected these claims over Miracle in view of the Ligman or Sham. In its decision, the BPAI held in relevant part:

"Similarly, the references applied by the Examiner contain no teaching or suggestion of "the step of heating the cleaning solution before the admixing step the admixture" as recited in separately grouped claims 11, 17 and 21. Apparently in reference to these claims, the Examiner states "The order of mixing will not be given patentable weight in the absence of showing superior or unexpected results" (Answer, page 13). This wholly inappropriate statement is directly contrary to long-established precedents. See, for example, In re Wilson, 424F2nd 1382, 1385, 165USPQ 494, 496 (C.C.P.A 1970) (All words in a claim must be considered in judging the patentability of that claim against the prior art.) Under these circumstances, we again are compelled to hereby reverse the Examiner's § 103 rejection vis-à-vis claims 11, 17, and 21 as being unpatentable over Miracle in view of Ligman or Sham. (BPAI, page 7-8)."

As is the case with the Examiner's previous combination of Miracle et al. '282 with Ligman or Sham, the Examiner's alleged combination of Wang and Miracle contains no teaching or suggestion of claimed step of "heating the cleaning solution before the admixing step to heat the admixture" which is the very same limitation that the BPAI found was not in the prior art references. The Examiner has not demonstrated any disclosure in this combined teaching of the step of heating a cleaning solution before admixing the cleaning solution with an oxidizing agent as required by claim 21. The Examiner points to some disclosure in Miracle as to the enhanced effectiveness of the oxygen bleaching solutions at higher temperatures but this disclosure has nothing to do with the step of heating the cleaning solution prior to mixing the cleaning solution with the oxidizing agent. This teaching of Miracle is consistent with mixing the Miracle composition with the cleaning solution in the Wang reservoir 320. No other interpretation of the alleged combination of Wang and Miracle et al. is possible. The Examiner's flawed logic does not support the step of heating the cleaning solution prior to mixing the cleaning solution with the oxidizing agent. Besides, this teaching of Miracle was before the BPAI in the previous

appeal on combination of Miracle et al. with references no different in substance than the Wang reference. Thus, the rejection of a claim 21 and the claims dependent therefrom are not obvious under 35 U.S.C. § 103(a) over Wang in view of Miracle. The Examiner's rejection is unsupported in fact and is inconsistent with the BPAI prior decision in this matter.

**4. The rejection of claims 2-10, 12-16, 18-28 under 35 U.S.C. §103(a) over the alleged combination of McAllise '696 in view of Miracle is contrary to the decision of the BAPI and not supported in fact.**

**Group A: Claim 18**

The rejection of claim 18 over McAllise '696 and Miracle appears to be no different than the rejection of this claim over the McAllise '977 patent. Both patents appear to have a common specification except for the claims. The Examiner appears to rely on the same disclosure in both references. Thus, Appellants' arguments in paragraph 2 above appear to be fully applicable here and are incorporated herein by reference.

**Group B: Claims 21, 2-10, 12-16, 19-20 and 22-28**

Claims 2-10, 12-16, 19-20 and 22-28 are directly or indirectly independent on claim 21 and are grouped with claim 21.

This rejection, like the rejection of the same claims under 35 U.S.C. § 103(a) as being unpatentable over Wang and Miracle, are fatally flawed because they are contrary to the earlier decision of the BPAI in this matter, for all the same reasons set forth above under paragraph 3. The Examiner's alleged combination of McAllise '696 and Miracle discloses nothing more than what was before the Board of Appeals in the Examiner's combination of Ligman or Sham and Miracle which was reversed by the BPAI. The alleged teaching of McAllise '696 and Miracle discloses nothing more than adding the Miracle bleaching composition to the solution tank of McAllise '696. The BPAI held that this combination of references "contained no teaching or suggestion of the step of heating the cleaning solution before the admixing step as recited in

separately grouped claims 11, 17 and 21.” (Opinion, p. 7, ¶ 2).

The Examiner has not demonstrated any disclosure in this combined teaching of the step of heating the cleaning solution before admixing the cleaning solution with an oxidizing agent as required by claim 21. The Examiner repeats the very same passages from Miracle that were made in the above rejection of claim 21 over Miracle in view of Wang as support for his allegation that the missing heating-before-admixing step is taught by the alleged combination of McAllise ‘696 and Miracle. The disclosure in Miracle et al. ‘282 as to the enhanced effectiveness of some oxygen bleaching solutions at higher temperatures has nothing to do with the step of heating the cleaning solution prior to mixing the cleaning solution with the oxidizing agent. In addition, Miracle teaches that their inventive bleaching compositions are for use at low temperatures (Col. 4, ln. 35-38).

The combined teaching of Miracle and McAllise ‘696 merely suggests mixing the Miracle et al. ‘282 bleaching composition with the cleaning solution in the McAllise ‘696 solution tank and applying the cleaning solution to a surface to be cleaned using the apparatus of McAllise ‘696. This combined teaching does not include the step of heating the cleaning solution before admixing the cleaning solution with the oxidizing agent which the BAPI found missing from the Examiner’s rejection of this claim in the previous appeal to the BAPI. Thus, claim 21 is not met by the combination of the McAllise ‘696 and Miracle.

Further, there is no motivation to add a heater to heat the cleaning composition of McAllise ‘696 prior to or after admixing of the Miracle bleaching composition since the compositions of Miracle are said to demonstrate improved performance at low temperatures. With no motivation to heat the combined McAllise ‘696 and Miracle composition, there is certainly no motivation to modify the apparatus of McAllister ‘696 to include a heater to heat the cleaning composition of McAllise ‘696.

Furthermore, there is no motivation to heat the cleaning solution prior to admixing the oxidizing agent, as set forth in claim 21. No other interpretation of the combination of these references is possible.

Therefore, the Examiner's flawed logic does not support the step of heating the cleaning

solution prior to admixing the cleaning solution with the oxidizing agent as required by claim 21 and the claims dependent therefrom. In addition, this teaching of Miracle was before the BPAI who reversed a rejection based on the combination of Miracle with references no different in substance than the McAllise '696 reference with respect to claim 21. The rejection of claims 2-10, 12-16, and 17-28 under 35 U.S.C. § 103(a) as unpatentable over McAllise '696 in view of Miracle is unsupported and inconsistent with the prior BPAI decision in this matter.

### **CONCLUSION**

In view of the foregoing, it is submitted that the rejection of claims 2-10, 12-16 and 18-28 is improper and should not be sustained. Therefore, a reversal of the rejections of claims 2-10, 12-16 and 18-28 on all grounds is respectfully requested.

Respectfully submitted,

Date: August 13, 2008

By: /John E McGarry/  
John E. McGarry, Reg. No. 22,360  
MCGARRY BAIR PC  
171 Monroe Avenue, NW, Suite 600  
Grand Rapids, Michigan 49503  
616-742-3500

### **VIII. CLAIMS APPENDIX**

1. (Cancelled)
2. A method for cleaning an upholstery or carpet surface according to claim 21 wherein the oxidizing agent comprises a preformed peracid compound selected from the group consisting of hydrogen peroxide, percarboxylic acid and salts, percarbonic acids and salts, perimidic acids and salts, peroxymonosulfuric acids and salts, and mixtures thereof, a persalt or a peroxide compound.
3. A method for cleaning an upholstery or carpet surface according to claim 2 wherein the oxidizing agent further includes an activator.
4. A method for cleaning an upholstery or carpet surface according to claim 3 wherein the activator is selected from the group consisting of tetraacetylenediamine, sodium octanoyloxybenzene sulfonate, sodium nonanoyloxybenzene sulfonate, sodium decanoyloxybenzene sulfonate, (6-octanamido-caproyl)oxybenzenesulfonate, (6-nonanamido-caproyl)oxybenzenesulfonate, 6-decanamido-caproyl)oxybenzenesulfonate, and mixtures thereof.
5. A method for cleaning an upholstery or carpet surface according to claim 4 wherein the activator is tetraacetylenediamine.
6. A method for cleaning an upholstery or carpet surface according to claim 4 wherein the oxidizing agent is selected from the group consisting of perborate compounds, percarbonate compounds, perphosphate compounds and mixtures thereof.
7. A method for cleaning an upholstery or carpet surface according to claim 6 wherein the admixture is at a temperature in the range of 120 to 190 degrees Fahrenheit during the dispensing step.
8. A method for cleaning an upholstery or carpet surface according to claim 7 wherein the admixture is mixed with heated air to further heat the admixture and further comprising the step of heating the air before the step of mixing the admixture with heated air.
9. A method for cleaning an upholstery or carpet surface according to claim

7 and further comprising the step of heating the admixture inline in a heater between the admixing step and the dispensing step.

10. A method for cleaning an upholstery or carpet surface according to claim 9 wherein the admixture is heated to a temperature in the range of 120 to 150 degrees Fahrenheit within 20 seconds.

11. (Cancelled)

12. A method for cleaning an upholstery or carpet surface according to claim 21 wherein the oxidizing agent is selected from the group consisting of perborate compounds, percarbonate compounds, perphosphate compounds and mixtures thereof.

13. A method for cleaning an upholstery or carpet surface according to claim 21 wherein the admixture is at a temperature in the range of 120 to 190 degrees Fahrenheit during the dispensing step.

14. A method for cleaning an upholstery or carpet surface according to claim 13 wherein the admixture is mixed with heated air to heat the admixture and further comprising the step of heating the air before the step of mixing the admixture with heated air.

15. A method for cleaning an upholstery or carpet surface according to claim 13 and further comprising the step of further heating the admixture inline in a heater between the admixing step and the dispensing step.

16. A method for cleaning an upholstery or carpet surface according to claim 15 wherein the admixture is heated to a temperature in the range of 120 to 150 degrees Fahrenheit within 20 seconds.

17. (Cancelled)

18. A method for cleaning an upholstery or carpet surface in which a fluid carpet or upholstery cleaning solution is dispensed onto the upholstery or carpet surface to be cleaned and the cleaning solution is recovered from the surface with suction, comprising the steps of:

admixing an oxidizing agent with the cleaning solution prior to the step of dispensing the cleaning solution onto the upholstery or carpet surface; mixing the admixture with heated air to heat the admixture; and heating the air before the step of mixing with admixture with heated air.

19. A method for cleaning an upholstery or carpet surface according to claim 21 and further comprising the step of further heating the admixture inline in a heater between the admixing step and the dispensing step.

20. A method for cleaning an upholstery or carpet surface according to claim 19 wherein the admixture is heated to a temperature in the range of 120 to 190 degrees Fahrenheit within 20 seconds.

21. A method for cleaning an upholstery or carpet surface in which a fluid carpet or upholstery cleaning solution is dispensed onto the upholstery or carpet surface to be cleaned and the cleaning solution is recovered from the surface with suction, comprising the steps of:

admixing an oxidizing agent with the cleaning solution prior to the step of dispensing the cleaning solution onto the upholstery or carpet surface; and heating the cleaning solution before the admixing step to heat the admixture.

22. A method for cleaning an upholstery or carpet surface according to claim 21 wherein the cleaning solution is dispensed through a nozzle onto the surface to be cleaned.

23. A method for cleaning an upholstery or carpet surface according to claim 21 wherein the cleaning solution includes an anionic and/or nonionic surfactant, an anti-soiling agent and an organic solvent.

24. A method for cleaning an upholstery or carpet surface according to claim 23 wherein the anti-soiling agent is selected from the group consisting of polymerized styrene/maleic anhydride, acrylate copolymer, fluoro-chemical compounds and mixtures thereof.



25. A method for cleaning an upholstery or carpet surface according to claim 24 wherein the organic solvent is glycol ether.

26. A method for cleaning an upholstery or carpet surface according to claim 23 wherein the organic solvent is glycol ether.

27. A method for cleaning an upholstery or carpet surface according to claim 23 wherein the cleaning solution includes a fragrance.

28. A method for cleaning an upholstery or carpet surface according to claim 21 wherein the admixture is at a temperature well above room temperature during the dispensing step.

Application No: 09/589,973  
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Examiner: Necholas Ogden Jr.  
Group Art Unit: 1796

**IX. EVIDENCE APPENDIX**

NONE

**X. RELATED PROCEEDINGS APPENDIX**

1. Appeal (2005-1053) to the United States Patent and Trademark Office Board of Patent Appeals and Interferences BAPI; decision mailed August 17, 2005.
2. A Request for a Pre-Appeal Brief Conference filed September 12, 2006; Notice of Decision mailed October 23, 2006.
3. A Request for a Pre-Appeal Brief Conference filed April 4, 2008: Notice of Decision mailed May 13, 2008.